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***MarineFisheries* Advisory**
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MarineFisheries INTRODUCES CUTTING EDGE TRAWL TEST TECHNIQUE

The Division of Marine Fisheries (*MarineFisheries)* Conservation Engineering Program is introducing an innovative and improved technique for testing selective trawls in Northeast waters that should result in vastly improved fisheries experiments and ultimately improve commercial fishermen's opportunities to selectively fish for various marine species.

The main problem fishing gear scientists face when testing an innovative selective trawl against a standard trawl is the enormous variance in catch between alternating tows. Researchers must conduct many hauls to statistically detect any difference between new trawl designs and traditional trawls. Often the number of hauls needed with the alternate haul method (one haul with the innovative trawl followed by a haul with a standard trawl) far exceeds what is practical or economically possible.

With the new technique the two trawls are hauled side by side by the same vessel in a 'twin trawl' rig to eliminate the variability in time and fishing ground (two vessels can also be used to tow the trawls side by side). With the twin trawl technique, much better statistics are obtained and fewer trawls are necessary. Until recently, the statistical evidence that trawl innovations result in more selective fishing than commonly used trawls has been a weak side of the research in the Northeastern United States.

The new head of *MarineFisheries'* Conservation Engineering unit, Thomas Moth-Poulsen, has brought the twin trawl technique for research purposes with him from Northern Europe, where most research projects already use the twin trawl method. The technique was initially developed in the Danish Flume tank in Hirtshals about 25 years ago; the flume tank in Hull, UK has also conducted trials with this technique. Commercial trawlers in Scotland and Denmark and some trawlers on the U.S. East Coast now use the twin trawl technique. It is easiest to use if a third winch is installed to control a center wire, but a two wire system can be used.

MarineFisheries' Conservation Engineering unit is running the first round of experiments using the twin trawl technique on Georges Bank with the commercial Point Judith trawler F/V MARY HELENA and skipper Scott Westcott the week of November 3rd. The trials will compare the innovative 'topless' and 'Ribas' trawls with a standard flatfish trawl. Previous cooperative work between industry and *MarineFisheries* has shown these nets can exclude most cod from the catch. This new experiment will show whether these findings can be transferred to larger trawlers and night-time hauls. In preliminary trials to break in the twin trawl, the two wire technique on Scott's trawler has been successful and handling has been less cumbersome than first anticipated.

The new twin trawl test technique means a big step forward in the research for more selective trawls and can be used to improve other trawl-related research in the Northeast. Through such research, *MarineFisheries'* Conservation Engineering unit hopes to provide insight into better opportunities for commercial fishermen from Massachusetts and throughout the Northeast who will need to avoid overfished species in the coming years pending new federal regulations under Amendment 13 in May of 2004.

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